Science Lit.
Japan

CONTENTS

Soil-Plant-Disease Relationships 1
Soil as a Medium for Transfer and Multiplication of Disease Organisms. S. D. Garrett. 3
Soil-Borne Diseases in Relation to the Microflora Associated with Various Crops and Soil Amendments. G. B. Sanford 9
Microbial Antagonism and Disease Control. Richard Weindling 23
Soil Temperature, Moisture, Aeration, and pH as Factors in Disease Incidence. Charles Chupp 31
Pathogenic and Physiogenic Damping-Off. W. S. Beach 37
Soil Management and Plant Nutrition in Relation to Disease Development. J. C. Walker 47
Control of Plant Diseases by Use of Inorganic Soil Amendments. Robert H. Daines 55
Volatile Soil Fumigants for Plant Disease Control. A. G. Newhall 67
Soil-Steaming for Disease Control. James Johnson 83
Soil Factors in Relation to Incidence and Symptom-Expression of Virus Diseases. H. H. McKinney 93
Soil Factors Affecting Incidence of Root Knot. Randall R. Kincaid 101
Phosphate Adsorption by Illinois Soils. Touby Kurtz, Ernest E. DeTurk, and Roger H. Bray 111
Relation Between Potash in Soils and that Extracted by Plants. E. H. Stewart and N. J. Volk 125
Comparison of Four Methods of Soil Moisture Measurement. C. S. Slater and J. C. Bryant 131
Microorganisms and Soil Aggregation: II. Influence of Bacterial Polysaccharides on Soil Structure. James P. Martin 157
Dynamics of Wind Erosion: IV. The Translocating and Abrasive Action of the Wind. W. S. Chepil 167
Retention of Phosphates by Soils: IV. Solubility of Phosphates Retained by Virgin Hammond Very Fine Sandy Loam Treated with $Ca(OH)_2$ and H_3PO_4. Franklin L. Davis 179
Books 191
Effect of Moisture Content on the Dissolved and Exchangeable Ions of Soils of Arid Regions. R. F. Reitemeier 195
Changes in Construction of Soil Moisture Tensiometers for Field Use. Albert S. Hunter and Omer J. Kelley 215
Straw Mulch for Soil Improvement. R. E. Stephenson and C. E. Schuster 219
The Integrated Soil Moisture Stress upon a Root System in a Large Container of Saline Soil. C. H. Wadleigh 225
Influence of Fertilizers on the Yield and Composition of Certain Crops and on the Soil. J. E. Greaves and D. W. Pittman 239
The Role of Clay Minerals in the Formation of Soil Structure. J. B. Peterson 247
Dynamics of Wind Erosion: V. Cumulative Intensity of Soil Drifting Across Eroding Fields. W. S. Chepil 257
Plant Nutriton and the Hydrogen Ion: V. Relative Effectiveness of Coarsely Ground and Finely Pulverized Limestone. Wm. A. Albrecht 265
Andrew Robeson Whitson, 1870–1945 273
Losses of Nitrous Nitrogen from Soils on Desiccation. M. R. Madhok and Fazal Uddin. 275
A Critique of Estimating Soil Solution Concentration from the Electrical Conductivity of Saturated Soils. R. F. Reitemeier and L. V. Wilcox 281
Variance in the Carbonatation of Certain "Glassy" and Crystalline Calcium Silicate Materials in Soils. W. H. MacIntire, S. H. Winterberg, H. W. Dunham, and L. B. Clements 295

The Laws of Soil Collodial Behavior: XXIV. Donnan Equilibria in Soil Formation. Sante Mattson and Karl Gustaf Larsson 313
Dynamics of Wind Erosion: VI. Sorting of Soil Material by the Wind. W. S. Chepil 331
Fluorine in Soils. W. O. Robinson and Glen Edgington 341
Displacement of Soil-Air by CO_2 for Permeability Tests. J. E. Christiansen, M. Fireman, and L. E. Allison 355
Titrimetric Determination of Sulfate in Natural Waters and Soil Extracts. E. C. Cantino 361
Absorption of Calcium by Peanuts from Kaolin and Bentonite at Varying Levels of Calcium. A. Mehlich and W. E. Colwell 369
Arrangement of Soil Series and Types According to Functions of Soil-Forming Factors. H. Jenny 375
Effects of Organic Residues and Nitrogen Fertilizers on a Semiarid Soil. Vance T. Smith, Lawrence C. Wheeting, and S. C. Vandecaveye 393
Relation of Moisture Tension to Heat Transfer and Electrical Resistance in Plaster of Paris Blocks. Howard R. Haise and Omer J. Kelley 411
A Pedologic Study of California Prairie Soils. Issaac Barshad 423
Chemical Relationships of Potassium and Magnesium in Organic and Sandy Soils of Central Florida. Vernon C. Jamison 443
Occurrence of Selenium in Pleistocene Deposits and Their Derivatives in South Dakota. W. V. Searight, A. L. Moxon, R. J. Hillmoe, and E. I. Whitehead 455
Relation of Parent Material and Environment to the Clay Minerals in Iowa Soils. J. B. Peterson 465
Effect of Different Sources of Nitrogen on Soil Reaction, Exchangeable Ions, and Yields of Crops. N. J. Volk and J. W. Tidmore 477

3
1
1

5

1

9

75

3

1
3

3

5

5

7